

2811

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Nobuaki HASHIMOTO

Application No.: 09/673,208

Filed: October 13, 2000

Group Art Unit: 2811

Docket No.: 107281

For: SEMICONDUCTOR DEVICE, MOUNTING SUBSTRATE AND METHOD OF  
MANUFACTURING MOUNTING SUBSTRATE, CIRCUIT BOARD, AND  
ELECTRONIC INSTRUMENT



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INFORMATION DISCLOSURE STATEMENT

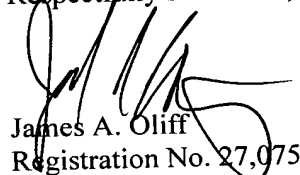
Director of the U.S. Patent and Trademark Office  
Washington, D.C. 20231

Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. The references were cited in a counterpart foreign application. An English language version of the foreign search report is attached for the Examiner's information.
- ☒ 3. English-language Abstracts 3-4 and 6-7 are attached hereto.
- ☒ 4. A translation of JP A 11-040620 is attached hereto.

Respectfully submitted,

  
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JAO:JSA/cmm

Date: June 27, 2001

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**AUSTRALIAN PATENT OFFICE  
SEARCH REPORT**



Application No.  
**SG 0005922-0**

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**A. CLASSIFICATION OF SUBJECT MATTER**

According to International Patent Classification (IPC)

Int. Cl. <sup>7</sup> H01L 23/12, 23/498, 21/60

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC: H01L 21/60, 23/12, 23/14, 23/48-50

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the search (name of data base and, where practicable, search terms used)

DWPI, IPC as above with keywords; interconnect+ and (substrate or +board+ or pcb or pwb) and (+plat+ or electrodeposit+)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 810656 A (Kabushiki Kaisha Toshiba) 3 December 1997 See the abstract, col 6, fig 6	2,3,5,6,8,9,11,12,14,15, 17,18,20,21,23,24,26, 27,33,34,40,41,47,48, 52,53
X	Patent Abstracts of Japan, JP 11-040620 A (Hitachi Cable Co) 12 February 1999 See the abstract, fig 7 and 8	1,4,7,10,13,16,19,22, 25
Y		28,31,35,38,42,45
X	Patent Abstracts of Japan, JP 2-120093 A (Ibiden Co Ltd) 8 May 1990 See the abstract	1,4,7,10,13,16,19,22, 25
Y		28,31,35,38,42,45

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

*Special categories of cited documents:		"T"	Later document published after the filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E"	earlier document but published on or after the filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the filing date but later than the priority date claimed		

Date of submission of the request to the Australian Patent Office 27 November 2000	Date of completion of the search report 7 March 2001	Date of mailing of the search report 21 March 2001
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Name and mailing address AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. 61 2 62853929	Authorised officer  <b>I.A. BARRETT</b>
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**AUSTRALIAN PATENT OFFICE**  
**SEARCH REPORT**

Application No.  
SG 0005922-0

**DOCUMENTS CONSIDERED TO BE RELEVANT**

C (Continuation)		Relevant to claim No.
Category*	Citation of document, with indication, where appropriate, of the relevant passages	
Y	Patent Abstracts of Japan, JP 2-232393 A (Furukawa Electric Co Ltd) 14 September 1990 See the abstract	28,31,35,38,42,45
X	EP 849983 A (Alcatel Alsthom Compagnie Generale D'Electric) 24 June 1998 See the abstract, fig 1-6	2,3,5,6,8,9,11,12,14,15, 17,18,20,21,23,24,26,2 7,33,34,40,41,47,48, 52,53
A	Patent Abstracts of Japan, JP 1-061986 A (Fujitsu Ltd) 8 March 1989 See the abstract	
A	Derwent Abstract Accession No. 86-018951/03, Class V04, JP 60-244094 A (Fujitsu Ltd) 3 December 1985 See the abstract	

**AUSTRALIAN PATENT OFFICE  
SEARCH REPORT**

**PATENT FAMILY  
MEMBERS**

**Application No.  
SG 0005922-0**

Patent Document Cited in Search Report				Patent Family Member			
EP	810656	CN	1170960	JP	10056094	US	6091137
JP	11040620	✓	NONE				
JP	2120093		NONE				
JP	2232393	✓	NONE				
EP	849983	CA	2222857	CN	1195262	JP	10224014
		US	6036836				
JP	1061986		NONE				
JP	60244094	✓	NONE				
END OF ANNEX							